



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Manus P. Henry et al.  
Serial No. : 10/637,620  
Filed : August 11, 2003  
Title : DIGITAL FLOWMETER

Art Unit : 1732  
Examiner : Unknown

Commissioner for Patents  
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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This statement is being filed before the receipt of a first Office action on the merits.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: April 7, 2004

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Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 02052-079004	Application No. 10/637,620
	Applicant Manus P. Henry et al.		
	Filing Date August 11, 2003	Group Art Unit 1732	

### U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	Re 29,383	09/00/77	Gallatin et al.			
	AB	Re 31,450	11/29/83	Smith			
	AC	3,956,682	05/11/76	Van Dyck			
	AD	4,419,898	12/13/83	Zanker et al.			
	AE	4,422,338	12/27/83	Smith			
	AF	4,491,025	01/01/85	Smith et al.			
	AG	4,688,418	08/25/87	Cheung et al.			
	AH	4,727,746	03/01/88	Mikasa et al.			
	AI	4,757,390	07/12/88	Mehrgardt et al.			
	AJ	4,773,257	09/27/88	Aslesen et al.			
	AK	4,782,711	11/08/88	Pratt			
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	BA	5,052,231	10/01/91	Christ et al.			

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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
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	BD	5,228,327	07/20/93	Bruck			
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	BV	5,774,378	06/00/98	Yang			
	BW	5,804,741	09/08/98	Freeman			
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	BZ	6,073,495	06/13/00	Stadler			
	CA	6,092,429	07/25/00	Cunningham et al.			
	CB	6,311,136 B1	10/30/01	HENRY et al.			

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Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	CC	EP 0 698 783 A1	28 FEB 1996	EUROPE			ABS	
	CD	EP 0 702 212 A2	20 MAR 1996	EUROPE			English	
	CE	EP 0696726A	14 FEB 1996	EPO				
	CF	EP 0827096	04 MAR 1998	EUROPE				
	CG	WO 00/10059	24 FEB 2000	WIPO				
	CH	WO 93/21505	28 OCT 1993	PCT				

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	CI	A.F. Skea, "Effects of Gas Leaks in Oil Flow on Single-Phase Flowmeters", <i>Flow Measurement and Instrumentation</i> , Vol. 10, pp 146-150 (1999)
	CJ	David Spitzer, "Mass Flowmeters"; <i>Industries Flow Measurement, Chapter 12</i> ; pp. 197-210; 1990
	CK	E. Luntta et al., "Neural Network Approach to Ultrasonic Flow Measurements", <i>Flow Measurement and Instrumentation</i> , Vol. 10, pp 35-43, 1999
	CL	J. Hemp et al.; "On the Theory and Performance of Coriolis Mass Flowmeters"; <i>Proceedings of the International Conference on Mass Flow Measurement Direct and Indirect</i> ; IBC Technical Services; 40 pages; February 1989
	CM	J. Reimann, "Developments in Two-Phase Mass Flow Rate Instrumentation", pp 339-402
	CN	J.T. Grumski et al., "Performance of a Coriolis-type Mass Flow Meter in the Measurement of Two-phase (air-liquid) Mixtures", ASME Fluid Engineering Division Publication FED, Vol. 17, pp 75-84, 1984
	CO	Joseph DeCarlo; "True Mass-Flow Measurement"; <i>Fundamentals of Flow Measurement, Unit 11-2</i> ; pp. 208-220; 1984
	CP	M. Henry et al., "The Implications of Digital Communications on Sensor Validation", Report No. QUEL 1912/92, University of Oxford, Department of Engineering Science, April 1992
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	CS	M.P. Henry et al., "A standard Interface for Self-Validating Sensors", Report No. QUEL 1884/91, University of Oxford, Department of Engineering Science, Sept. 1991
	CT	M.P. Henry et al., "Signal processing, Data Handling and Communications: The Case for Measurement Validation", March 1992
	CU	M.P. Henry et al., "The Self-Validating Sensor: Rationale Definitions and Examples", <i>Control Engineering Practice</i> , 1 (4), pp 585-610, 1993
	CV	M.P. Henry, "Intelligent Behaviour For Self-Validating Sensors", <i>Advances in Measurement</i> , pp 1-7 date unknown

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<b>Other Documents (include Author, Title, Date, and Place of Publication)</b>		
<b>Examiner Initial</b>	<b>Desig. ID</b>	<b>Document</b>
	CW	M.P. Henry, "Self-Validation Improves Coriolis Meter", <i>Control Engineering</i> , 42 (6), pp 81-86 (1995)
	CX	M.P. Henry, "Sensor Validation and Fieldbus", <i>IEE Computing and Control Engineering Journal</i> , 6 (6), pp 263-269
	CY	R.P. Liu et al., "A Neural Network to Correct Mass Flow Errors Caused by Two Phase Flow in a Digital Coriolis Mass Flow Meter". Engineering Science Department, Oxford University
	CZ	

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